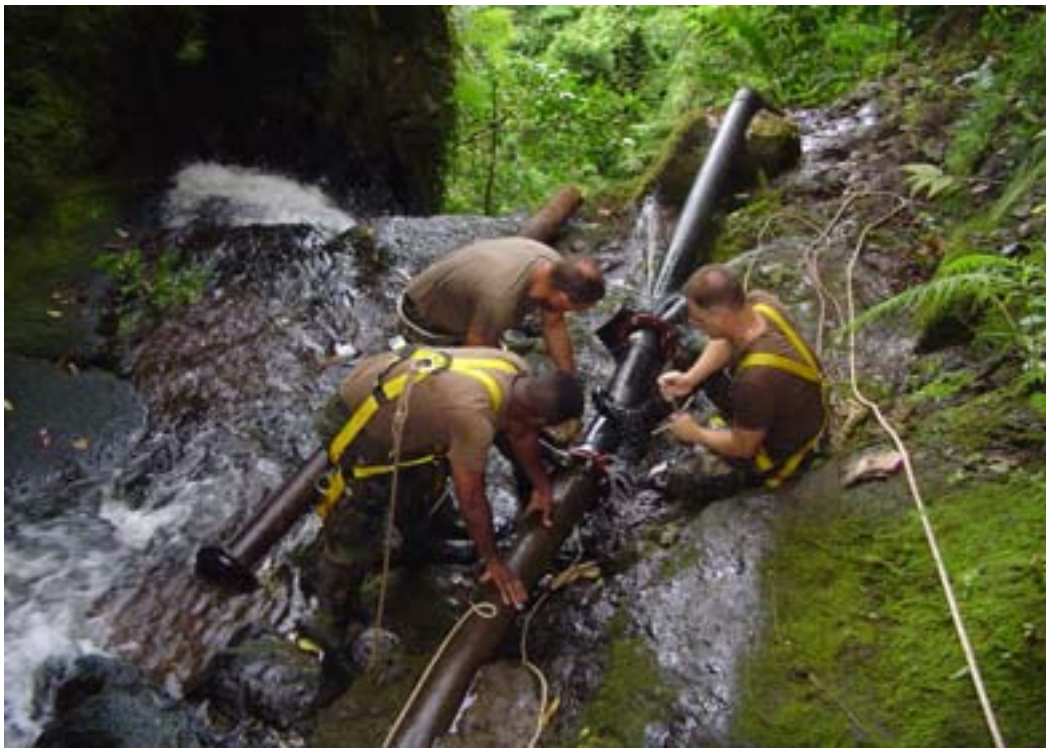
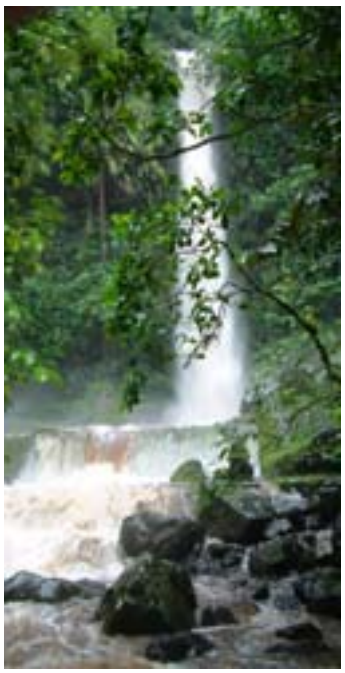
PReserver
News for the U.S. Army Reserve Environmental Community
Third Qtr. 2005



Reservists begin construction of the pipeline on top of an 80-foot waterfall.

# 9th RRC meets the challenges of water system repair project in American Samoa

Article by **Mr. Dennis Pascual, HQ 9th RRC ARIM**



**Fa'asamoa** (fah-ah-SAH-mo-ah) is the term for the distinct cultural traits of the people of Samoa. Samoans consider their island world to be sacred. Lands, waters, and food sources are managed in order to sustain them for the future. Samoan culture, customs, and traditions emphasize the importance of the extended family, the aiga (eye-ing-ah). Each aiga's lands are managed by its chief, or matai (mah-TIE) for the common good.

In the spirit of Fa'asamoa, Army Reserve soldiers from the 9th Regional Readiness Command (RRC) and the 461st Engineer Company (Pipeline) teamed together to restore an old non-functioning WWII gravity-fed water distribution system for the villagers of Leone in American Samoa. The project came to fruition when Congressman Eni Faleomavaega submitted a request to the 9th RRC to provide assistance in renovating the water system in the village of Leone. The congressman stated that the water system in the village provides the needs for 3, 000 residents. He further said that over the past 50 years, only minor repairs and upgrades had been made to the dilapidated water system.

In an effort to start the project, a team of engineers from the Army Reserve Installation Management (ARIM) Staff, 9th RRC, accompanied by an

*Article continues on page 2*

U.S. ARMY RESERVE

The PReserver Newsletter is a functional bulletin authorized under the provisions of AR 360-1 for members of the United States Army Reserve Command (USARC). It is published quarterly by the USAR Environmental Division to provide the Total USAR Environmental Community with information on people, policies, operations, technical developments, trends and ideas of and about the Environmental Division of the U.S. Army Reserve. This publication has a circulation of 500 printed copies and several internet access points.

Manuscripts of interest to U.S. Army personnel are invited. Direct communication is authorized to

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# 9th RRC, continued

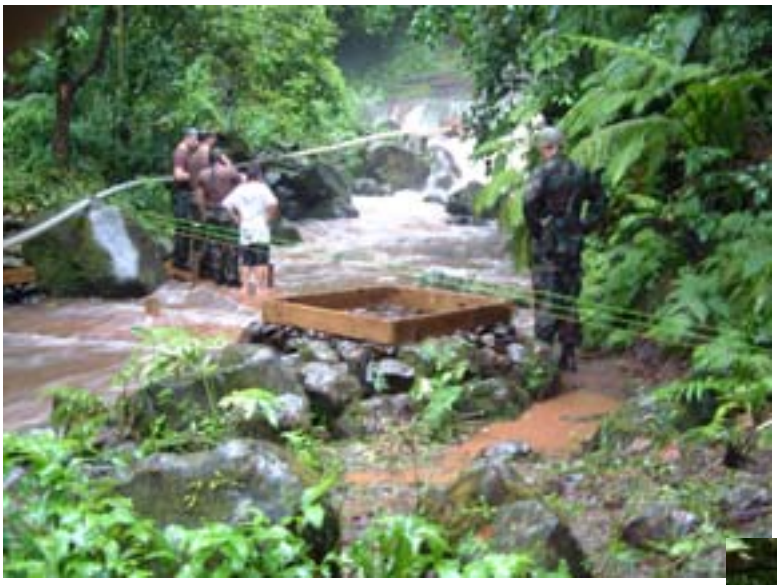
engineer from the United States Army Pacific (USAPAC), made several trips to American Samoa to make assessments and to conduct site surveys. The staff then designed a new non-potable water system suitable for agriculture and other non-potable use. The new system included installing 7,000 feet of High-Density Polyethylene Pipe (HDPE Pipe), several gate valves, and strainers. The project was designed as an Innovative Readiness Training (IRT) Project. The 9th RRC environmental staff devoted numerous hours coordinating with the American Samoa Historic Preservation Office and Environmental Protection Agency to ensure that there would be no disruption of known historic properties and that precautions would be taken should new properties or artifacts be discovered.

The environmental challenge faced by the Army Reserve personnel was working in a highly sensitive archaeological area. Located throughout the main island of Tutuila can be found outcrops of high-grade, fine-grained basalt. The rock was highly prized for the manufacture of stone tools. Samoan ancestors found, developed, and quarried these outcrops. Archeological studies of American Samoa have discovered numerous ancient adze quarries. The adze quarries on American Samoa are more than 1000 years old, and flourished during a period when Samoa exported stone tools throughout Polynesia and Micronesia in the vast Pacific.

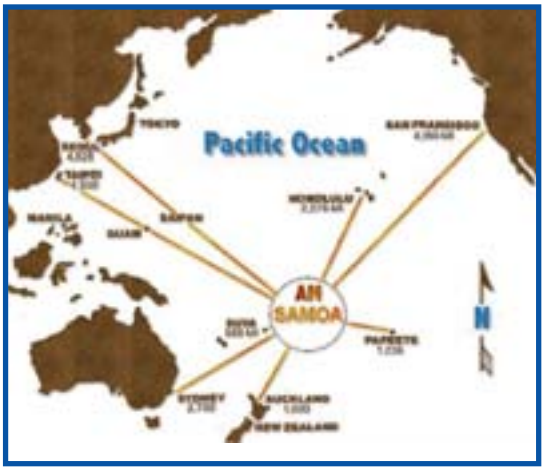
An archaeological survey was conducted in the area encompassing the Leone Pipeline IRT Project. Several artifacts were found during the survey on the northern end of the project area toward the area known as Tataga-Matau, a site listed on the National Register of Historical Places. Tataga-Matau is the site of the largest basalt quarry found, 50 acres of once intensely occupied land, now mainly overgrown by vegetation.

Soldiers from the 461st Engineer Company (Pipeline), 96th RRC, located in Fargo, North Dakota left sub-zero degree weather and traveled to a tropical environment to perform the IRT Project as an Oversees Duty Training Exercise. The company deployed with 27 soldiers to complete the final aspects of Phase I of the project. Captain Jack Thresher, Commander of the unit, stated that this was the first time his company has ever worked with HDPE Pipe. He said, that the soldiers of his company thoroughly enjoyed the training received from learning to work with the HDPE Pipe and the fusion equipment. He also expressed the value in learning about the Samoan culture and the spirit of Fa'asamoa.

Colonel Gerald Gibbons, the Assistant Chief of Staff for Installation Management, 9th RRC, who served as the Quality Control Engineer and Liaison Officer for the project, said "the IRT Project provided a great training opportunity for the soldiers. They got the chance to build something permanent and work with new technology." He also noted that the project was a win-win project for both the people of American Samoa and the soldiers.



Scenes from the pipeline construction in American Samoa




*Map from American Samoa Office of Tourism Website*

# 77th Regional Readiness Command

Article by **Ms. Ingrid Weigand, 77th RRC**


The SSG Frederick J. Ill US Army Reserve Center, Bullville, NY was the site of the 77th Regional Readiness Command's 2005 Earth Day event. This was the first Earth Day event the 77th RRC, Environmental Division conducted at a Reserve Center. It was coordinated in conjunction with the 854th ENGR BN, CO A Family Day and the unit's drill weekend on Sunday, July 10, 2005.

With all the activities planned, there was something for everyone. Several arts and crafts projects occurred throughout the morning. The families decorated a banner with drawings pertaining to the Earth Day theme which is now hanging in the drill hall at the Ill USARC. A sidewalk chalk art contest was held and the theme was "Nature and the Environment". The children were very excited about decorating the sidewalk with their artwork. The adults had fun along side the children and helped them when they needed it. There was also a bird feeder project. The materials, which consisted of several types of reused milk and juice containers, markers and glitter glue were all available.

Soldiers and families enjoy the Natural Resources Matching Game (photos above and left).

Ms. Lucy DiSalvo and young friends decorate bird houses.

Teamwork gets the banner done!

The children played a natural resources matching game, which featured approximately 30 plants and animals found at the Reserve Center. A planting project took place. The children and soldiers really enjoyed planting peas in reused water bottles. Peas were planted by the Environmental Division over the past few weeks to demonstrate each stage of germination. All were interested in seeing how the seeds would develop over time. They were all very excited with the prospect of having their very own peas that could be eaten right off the vine.

A lot of useful and interesting information was available including; a display board about recycling plastic, water conservation tips and how to use household products (i.e., baking soda, vinegar) as alternatives to harsh chemicals for cleaning.

The Environmental Division distributed giveaway items, emblazoned with the environmental program branding, that are useful, educational, fun and made of recycled materials. The kids enjoyed the recycled coloring books, crayons made from soy ink and mood pencils made from recycled newspaper. Notepads made from recycled paper, pens made from recycled paper and plastic and travel mugs made from 50-80% post industrial acrylic were popular among the adults. To encourage the practice of bringing a bag when shopping, durable tote bags made from 100% post consumer recycled soda bottles were distributed. Children and adults were amazed to learn that the bags are made from recycled materials. Wildflower seed packets were also distributed to encourage planting/gardening as a family activity.

The event was a great success. All those at the Center were very enthusiastic and thankful. The Environmental Division is grateful to the Ill USARC personnel and unit personnel for accommodating them and providing help in organizing the event.


# Camp Parks celebrates RCI Project Success

Article by **Mr. Paul Kot, Camp Parks**

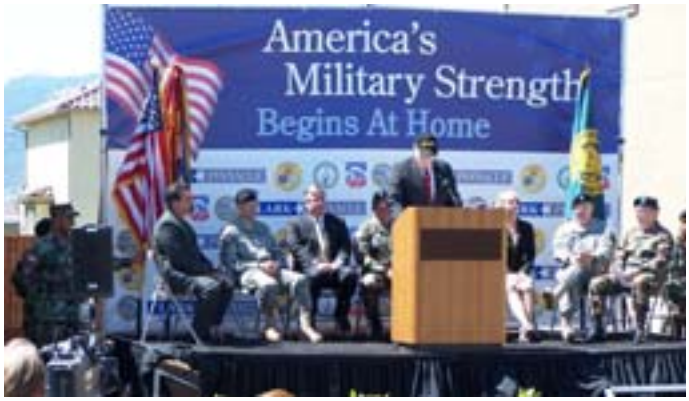
The Environmental Office gathers for a photograph. From left to right, Mr. Kevin Shevlin; Congressman Richard W. Pombo; Brigadier General Gary M. Profit; Mr. Paul Kot; Ms. Megan Chen; Mr. Daniel Walsh; Mr. Andre Stanton; Mr. John Billecci; Mr. Lloyd Mullins; Mr. Gary Houston, Environmental Chief; and Mr. Michael Strauss.

Camp Parks recently held a ribbon cutting ceremony celebrating the opening of 114 new homes for military housing. R.C.I., otherwise known as Residential Community Initiative, provides the families of military personnel with quality living quarters commiserate with housing of the surrounding civilian community. This is the final culmination of an intense coordinated effort of the Parks Environmental Office, Directorate of Public Works, IMA-AR Environmental, the private sector partner, Clark/Pinnacle, United States Fish & Wildlife Service, California Department of Toxic Substances Control and the San Francisco Bay Regional Water Quality Control Board.


*Before*


SFC Eric Russell and family complete the ribbon cutting ceremony at their new home.


Before and After - the above photo shows the initial stages of land development for the Residential Community Initiative in 2004. The photo below features the new homes and the over 200 supporters who attended the ribbon-cutting ceremony.



Addressing the audience is Asst. Secretary of the Army for Installations and Environment, Mr. Geoffrey Prosch. Seated from left to right is Congressman Richard Pombo; Brigadier General Gary M. Profit, Deputy Chief, Army Reserve; Mr. Scott Haggerty, Supervisor, Alameda County; SFC Stephen Jenny, Master of Ceremony, Jodi Winters, Program Manager; Clark/Pinnacle, Col. James Doty, Commanding, and Major Robert Brady.

# Fort Hunter Liggett Honored at Conference

Article by **Mr. Gary Houston, Fort Hunter Liggett**

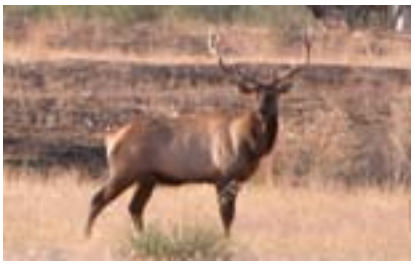
Fort Hunter Liggett was honored in August by being published in a White Conference on Cooperative Conservation, sponsored by the Council on Environmental Quality. The report on the *Invasive Species and Grassland Restoration at Fort Hunter Liggett* (included in its entirety below) was included as one of only 15 DoD installations invited to attend the Conference.

## Invasive Species and Grassland Restoration at Fort Hunter Liggett, California

Fort Hunter Liggett is an Army Reserve training site that is used by all military services in a year-round mild climate environment. The US Army Garrison, Combat Support Training Center at Fort Hunter Liggett supports 160,000 acres including 16,000 acres of grassland habitat including 21,000 acres of oak savannah habitat. The habitat is ecologically important as similar habitats have been greatly diminished in quantity and quality in California. This grassland habitat supports a wide variety of native plant and wildlife species. Critical wetland vernal pool habitats are also contained in these grasslands and are ecologically important in providing aquatic habitat for a variety of species including the federally listed vernal pool fairy shrimp. Grassland and oak savannah habitats are extremely important areas for supporting quality military training in a natural environment. Preserving quality training land drives the effort to restore the grasslands.

Since its introduction to California in the 1800s, the yellow star-thistle (*Centaurea solstitialis L.) has* impacted some 25 million acres in California. This species of plant produces a thorn sharp enough to rip clothing, with portions of the plant being harmful to both horses and cattle. The plant also reduces the foraging capacity of the ecosystem, thereby affecting grazing animals such as elk. Each plant will also produce about 5000 seeds which can lay dormant for up to 10 years. Approximately 20,000 acres of grassland and oak savannah habitats on Fort Hunter Liggett, California are now infested with yellow star-thistle. Controlling this invasive plant is a long-term and expensive venture (approximately $50 per acre for herbicide application), which makes partnerships, as implemented at Fort Hunter Liggett, crucial in accomplishing management goals of eradication. Unchecked, yellow star-thistle crowds out native species and degrades the ability of soldiers to train. The fuel load created by the uncontrolled overgrowth of yellow star- thistle contributes to significant wildfires.

About 4800 acres have been successfully treated since 1999. The control program, developed by the Army's Integrated Training Area Management (ITAM) Program in association with the California Department of Food and Agriculture (CDFA) and University of California at Davis, utilizes an Integrated Pest Management (IPM) approach. Fire is first employed during the summer months to remove the dense residual star-thistle and force a much greater germination of star-thistle seeds. The following spring, an herbicide that utilizes the plants own biochemistry is used to kill the flush of seedlings caused by the previous summers fire. Five species of biocontrol insects and one species of rust-fungus have been released in the areas where prescription burns and herbicide use are prohibited such as riparian corridors. These areas act as reservoirs, providing a source of biocontrol agents that attack seedlings able to survive the herbicide treatment. Besides benefiting the Army in clearing Fort Hunter Liggett of yellow star-thistle, the program will assist California farmers and ranchers in protecting and restoring their lands for the future.



Restoring and maintaining viable and productive grassland and savannah habitats is vital both to the environment and mission readiness, and supports the Army's Sustainability Mission. The US Army Garrison, Combat Support Training Center, Environmental Office is responsible for managing the natural resources at Fort Hunter Liggett. The grassland restoration activities and efforts are supported by a partnership of the Environmental Office and the Army's Integrated Training Area Management (ITAM) program, the Fort Hunter Liggett Fire Department, and the Rocky Mountain Elk Foundation. ITAM is responsible for integrating training requirements with [training] land carrying capacity (AR350-4) while the Fire Department manages prescription burns.

The Rocky Mountain Elk Foundation is a private, non-profit conservation organization that supports habitat management and conservation for wildlife, specifically for elk. [Fort Hunter Liggett has the second largest tule elk herd in California.] The Foundation has twice made grants in the amount of $20,000 to support yellow star-thistle control. Fort Hunter Liggett uses its hunting control fees along with a matching DoD grant to fund habitat improvement efforts.

Technical support is being provided in cooperation with University of California at Davis, San Luis Obispo and Monterey Counties, Dow AgroSciences, and the US Army Environmental Center.

# Defense Energy Support Center Funding

## A Resource available to all Installations and RRCs

Article by **Ms. Evelyn Purcell-Gilpin, IMA-AR**

The organization known today as the Defense Energy Support Center (DEFC) originated in World War II, as the Army/Navy Petroleum Board within the Department of the Interior. Over the years and through many changes, including capitalization of all Department of Defense (DoD) aviation and land fuel, the structure of the agency changed. Today DESC still sustains the basic mission of supporting the war-fighter and managing the energy sources of the future. To this end, DESC endeavors to provide the DoD and other government agencies with comprehensive energy solutions in the most effective, efficient and economical manner possible. Additionally, and keeping the mission in mind, DESC funds a variety of fuel related environmental plans and projects for the Department of Defense.

Items covered include:

- ✔ Preparation and Update of oil related plans (SPCC and contingency etc);
- ✔ Plan familiarization;
- ✔ Fees, Fines, Retainers, Sampling, Monitoring; and
- ✔ Variety of oil related environmental construction and maintenance projects.

By virtue of the fact that DoD fuel has been capitalized, all installations and RRCs are eligible for, and have the right to tap into, this source of funding. However, currently many agencies and entities are not taking full advantage of the opportunity to utilize this important funding source and, therefore, lose the benefit of the additional funds that are available and rightfully theirs - for the asking.

The DESC web site incorporates a guidance document and the relevant application forms for environmental compliance projects, providing detailed information on the program and answering basic questions that come to mind. The DESC website may be found at: http://www.DESC.dla.mil.

Two basic application forms are included on the website. The first form (Environmental Compliance Costs Worksheet) would be used for annual costs such as plan preparation or update, fees, fines, sampling, monitoring and other oil related annual expenditures. The second form (DD-1391) covers applications for construction or maintenance projects. Application and disbursement of funds in large allocations to contracting offices is recommended, since this reduces paperwork, contracting fees and other overheads. Thus requests for funding from installations/RRCs for fuel related funding needs and project requirements may be submitted individually, or in one application, annually or bi-annually. Thereafter the application(s) could be submitted to DESC to cover each specific time period. Engineering or construction projects may be required to provide more detailed information, such as plans or engineering specification attachments or similar information.

DESC could provide resources for a number of fuel related projects and plans, which in turn would free up environmental funds for utilization in other areas. Appropriation of the available DESC funding for fuel related environmental projects would therefore be both beneficial and expedient; and worth the submittal of an application and the limited paperwork that may be required.

# Activities with Suspense: Dates and Related Events

### AEDB-Compliance cleanup (AEDB-CC) Datacall

**Open: 19 Sept 2005 - Closed by IMA: 28 Oct 2005** IMA-ARO Program Manager: Soe Aung 703-602-2853

### AEDB-Environmental quality (AEDB-EQ) Datacall

Program Managers (EMS, EQCC, and P2) **Open: 26 Sept 2005 - Closed by ACSIM: 14 Oct 2005**

Natural and Cultural Resources, Compliance, Surveys **Open: 26 Sept 2005 - Closed by ACSIM: 28 Nov 2005**
IMA-ARO Program Manager: Kellyann Few 703-602-2788

# RRC Compliance Assessments to Evolve

Article by **Mr. Stan Mitchell, IMA-AR**

Beginning in FY 2006, the Environmental Compliance Assessment System (ECAS) within the Army Reserve Regional Readiness Command (RRC) community will transform into the Environmental Performance System (EPAS). The change of one word signifies a new direction for environmental auditing.

The EPAS audits will combine the traditional environmental compliance assessment with an Environmental Management System (EMS) audit. A pilot EPAS audit will be performed in FY 2006 at the 63rd RRC using a combination of Army and contractor personnel. Subsequent EPAS audits will occur from west to east across the country each year through FY 2009. The EPAS audits performed during this initial sweep will assess every facility within each RRC for environmental compliance. The EPAS audits will also assess each RRC's EMS for conformance with ISO 14001.

The 416th Engineer Command (ENCOM), the Army Reserve unit that provided the Army Reserve's external compliance assessors during FY 1992 through 2005, will continue to have a crucial role in EPAS. Army EPAS policy requires the completion of internal compliance assessments during the years between external assessments. The 416th ENCOM will provide assistance to the RRCs in their performance of internal environmental compliance assessments.

Assistance from the 416th ENCOM for internal compliance assessments (as well as any other project or assessment) must be requested by preparing a Memorandum of Agreement (MOA) to be signed by the RRC Director of Public Works (or equivalent) and the appropriate 416th ENCOM signatory. This MOA must be renewed annually.

RRC EPAS Schedule by FY

| | | | |
|---|---|---|---|
| 9th | | | |
| 96th | | | |
| 90th | | | 99th |
| 70th | 89th | 81st | 94th |
| 63rd* | 88th | 65th** | 77th |
| 2006 | 2007 | 2008 | 2009 |

*Carried over from FY05 **May be combined with Ft. Buchanan

This change in auditing will put the Army Reserve in line with the rest of the Army, will provide each RRC with a complete picture of their environmental compliance at one point in time, will assess conformance with ISO 14001, and will serve as a basis for future compliance initiatives throughout the Army Reserve.

For additional information contact Stan Mitchell: 678-278-4024 x327 or email stan.mitchell1@us.army.mil.

# Getting to know RACER

Article by **Mr. Soe Aung, IMA-AR**

The Army Environmental Data Base (AEDB) is the main database for environmental projects. This database requires cost estimates for each phase of Restoration and Compliance related Cleanup projects. RACER, the Remediation Action Cost Engineering and Requirements, is a software program which provides the cost estimating process for all phases of remediation for all environmental projects.

The RACER software is required to develop Cost-to-Complete estimates for sites where a feasibility study has not been completed.

RACER not only calculates detailed costs for environmental projects but is also enabled to import cost data directly to the AEDB. For that reason, RACER becomes an important tool for the Army Reserve Environmental Program. Persons who are involved in any type of clean up project from the Army Reserve Regional Readiness Commands and Installations would benefit from learning RACER.

***A few of the benefits of RACER:***

• RACER estimates cost down to the individual line item such as each labor category, test method or equipment, etc…for each phase for each environmental project. Each cost category can adjust or modify based on the site condition. Final cost estimates can then be imported into the main AEDB.

• RACER can produce different types of cost estimates for different environmental projects. It can also produce multiple cost estimates for one environmental project. Since unit cost for labor, material, and equipment have been updated to recent cost codes, the costs reflected are present day information.

• RACER is a parametric based estimating tool that uses industry standard methodologies and practices. RACER unit costs were determined by previous completed project costs and by environmental science and engineering practice. Because of that reason, the RACER system is accepted by regulatory agencies.

• RACER software is very user friendly. Very minimal input data is required to get detailed comprehensive output cost estimate data. Output data will provide unit cost, total units and total cost of each line item. Therefore, it is very useful to make plans for budgetary estimates.

• The RACER system is also a flexible program. It can manipulate each line item in different ways, then compare and choose the best alternatives.

• The RACER system is widely used in inter- and intra- governmental agencies for budgetary estimates. Therefore, it is very easy to communicate in planning and cost estimating across government agencies.

For more information on the RACER program and how to obtain the software, contact Soe Aung: 703-602-2853 or email soe.aung@hqda.army.mil.

Look for more RACER information in the next newsletter.

# Hurricane Katrina and mosquito-borne diseases


NOAA Photograph of New Orleans

Article by **Mr. Mel Marks, IMA-AR**

Experiencing Hurricane Hugo here in the Charleston S. C. area in September 1989 gives me a lot of empathy for the people in the Gulf Coast region. We all have been hearing reports that flooding in New Orleans could cause major public-health problems ranging from diarrhea to West Nile virus. While flooding can potentially spread such epidemic-causing diseases as typhoid fever and cholera, they are not of the greatest concern, because they are not endemic in the United States.

A more serious risk could be mosquito-borne diseases such as malaria, dengue fever and West Nile virus. Isolated cases of the mosquito borne disease dengue fever have been found in the region over the last ten years. Not only are all the mosquitoes that traditionally carry these diseases still thriving in the area, but the Aedes albopictus mosquito was introduced to the Americas from Asia about 15 years ago, and now thrives in the Gulf Coast region. Most of these mosquito species reproduce rapidly in precisely the conditions that are now present after the hurricane. Some prefer massive areas of still, warm, polluted water: that is present in New Orleans. Some, such as Ades albopictus and Yellow Fever carrying mosquito Aedes aegypti like small pools of unsalted water, such as fresh rainwater that accumulates in tree stumps and debris.

The challenge will be to control mosquitoes from the sort of massive water-soaked ecology that now covers New Orleans and the Gulf tri-state area. Federal and state officials already have launched a mosquito-control program for the region. Requested assistance includes DoD support by the Air Force Aerial Spray Flight Team who has large aerial spray capabilities.

# Award Opportunities

### IMA-AR Environmental Excellence Awards

Recognizing outstanding environmental stewardship by Army Reserve installations, teams and individuals.
Information available at: https://usarcintra/ems/subcom/pr_awards/home.htm
**Nominations due 30 December 2005**

### National Arbor Day Foundation Tree City USA Award

Recognizing excellence in forestry for a town, city, or military installation.
Information available at: www.arborday.org
Application deadline **31 December, annually**

### Society of American Archaeology Award for Excellence in Cultural Resource Management

Recognizes excellence by an archaeologist working in a cultural resource management setting, who has contributed significantly to archaeology.
Information available at: www.saa.org/Aboutsaa/Awards/crm.html
Application deadline **20 December, annually**

### The Soil and Water Conservation Society Merit Award

Recognizing an outstanding activity, product, or service by a group or organization that promotes the conservation of soil, water, and related natural resources.
Information available at: www.swcs.org/f_aboutSWCS_chrel.htm
Application deadline **12 December, annually**

### Air and Waste Management Association Awards

Awards are presented in numerous categories to recognize individuals and organizations for outstanding accomplishments in the promotion of a clean environment.
Information available at: www.awma.org/about/awards/
Application deadline **1 November, annually**

### The American Forest and Paper Association Ed Hurley Memorial Paper Recycling Award

Recognizes an individual who has had a significant and positive influence in advocating paper recycling.
Information available at:www.afandpa.org/Content/NavigationMenu/Environment_and_Recycling/Recycling/Communications_Materials/Best_Paper_Recycling_Awards1/AFandPA_Recycling_Awards.htm
Application deadline **15 January, annually**



The PReserver is printed on Recycled Paper (30% Post-Consumer Waste Fibers)